

REMARKS/ARGUMENTS

Claims 1-3 and 6-26 are pending in this application, new claims 23-26 having been added hereby, and claims 4-5 having been canceled. Claims 18-22 have been allowed.

Claims 6, 10, 11, 13, and 17 were indicated as allowable if rewritten. These claims have been so rewritten, and accordingly are believed to be in condition for allowance. Claim 6 has been slightly clarified to make it more definite by stating that the amplitude difference is "at least" 3 dB, rather than "about" 3 dB.

Claim 1 was objected to because the word "sufficient" was considered indefinite. This word has been removed from claims 1 and 7.

Begault (5,438,623).

Claims 1, 2, 4, 7-9, and 15 were rejected as being anticipated by Begault. It is noted that while some of the references appear to be to Begault, other of the references from the Office action appear to refer instead to the Connor et al. patent (6,011,851). For example, on page 3 of the Office action, the reference to col. 1, lines 49-56 of Begault appears instead to be a reference to Connor, as do the remaining references on page 3. Accordingly, it is unclear if this rejection is intended to be an obviousness rejection based on the combination of Begault and Connor.

Both Begault and Connor use complex Head Related Transfer Functions (HRTF) to position sounds as appearing to come from a perceived source location. An amendment to the specification of this application corrects a reference to such prior HRTF systems, making it clear that these are a combination "of" amplitude, delay and filtering functions (correcting the reference to "or"). To the extent amplitude is included in the complex HRTF algorithm, the amplitude is not modified by itself, but is modified in combination with the phase being modified. The HRTF is based on matching a complex combination of functions to the shape of a human ear.

The present invention provides a simplified method that provides many of the same advantages as the complex and expensive HRTF system. The rejected claims 1, 7, 8, 9, 12,

14, and 15 have been amended to clarify that the differentiation cue is a "single" cue, thus distinguishing the complex combination of multiple cues used in the HRTF systems.

In addition, the rejected claims have been amended to clarify that the cue is in the form of an amplitude difference, and that that amplitude difference is of at least 3 dB. None of the cited references shows or suggests using a simple, single cue in the form of amplitude only, and none of the references suggests that this be 3 dB or more. Accordingly, the claims as amended are believed allowable over Begault and/or Connor.

Claims 3, 5, and 14 have been similarly rejected as being unpatentable over Begault under 35 USC 103(a). Claim 5 has been canceled, and the amendments to the other claims described above are believed to non-obviously distinguish over Begault.

Begault and Kinoshita et al. (5,734,724).

Claims 1, 7-9, 12, and 14-16 have been rejected as being unpatentable over the combination of Begault and Kinoshita. Applicant submits that these claims are distinguishable for the reasons set forth above. In addition, applicant submits it would not be obvious to combine Begault and Kinoshita. As noted in the Office action, Kinoshita refers to Begault in col. 1. However, this is referring to Begault as a prior art system from which Kinoshita distinguishes itself. Accordingly, it is submitted that it would not be obvious to combine the two, since Kinoshita purposefully distanced itself from Begault rather than adopting the features of Begault. In particular, Kinoshita attempts to provide a system other than a HRTF system.

New claims

New claim 23 combines elements of claim 1 with the summing elements of claim 18, and is believed allowable for the same reasons as claim 1. New claims 24-25 are similar to claim 1, but set forth that the only differentiation cue is differential time delay or filtering. These do not add new matter since they are discussed, for example, in the summary on page 2, lines 7-8. They are believed allowable for the same reason as claim 1 - they utilize a simple, single differentiation cue. Claim 26 is based on claim 1, further setting forth that the audio signals are a radio broadcast signal for the first signal, and either a second radio broadcast signal or an

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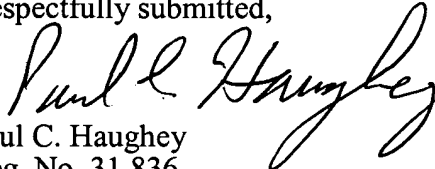
intercom signal for the second signal. This is discussed on pages 4, lines 16 - 27 and page 10, lines 3-32.

CONCLUSION

In view of the foregoing, Applicant believes all claims now pending in this Application are in condition for allowance and an action to that end is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,


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